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WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE
and
OREGON STATE UNIVERSITY
and
STATE ENGINEER of OREGON

Data included in this report were obtained by the agencies named above
in cooperation with other Federal, State and private organizations.

AS OF
JUNE 1, 1969

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85205
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80521
Idaho	P. O. Box 38, Boise, Idaho 83707
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Building, Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 340, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR OREGON

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Issued

JUNE 8, 1969

Issued by

KENNETH E. GRANT

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D C

|||||
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STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
PORTLAND OREGON

In Cooperation with

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CHRIS L. WHEELER

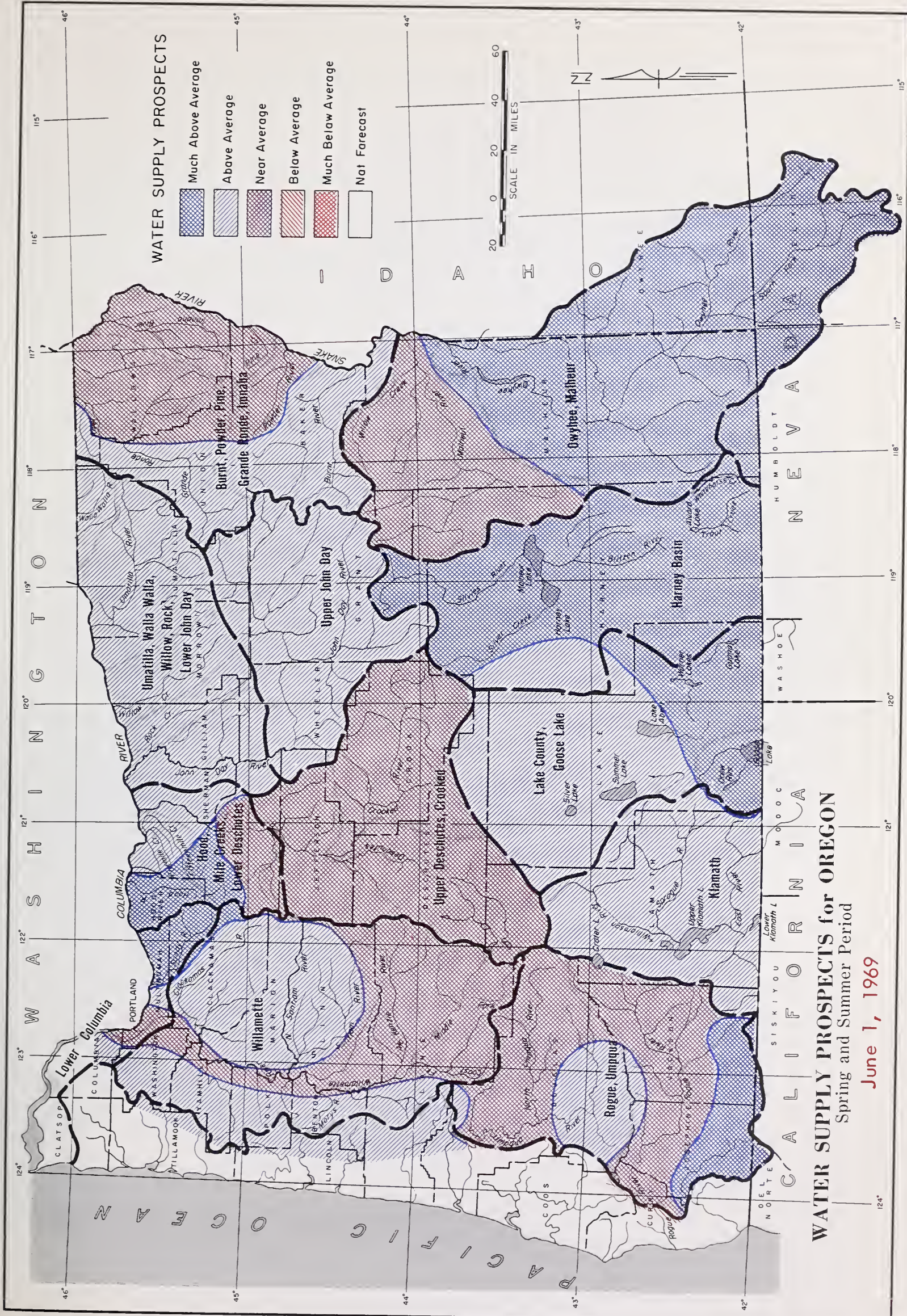
STATE ENGINEER
STATE OF OREGON

|||||
Report prepared by

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1218 S W WASHINGTON ST.
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WATER SUPPLY PROSPECTS

- Much Above Average
- Above Average
- Near Average
- Below Average
- Much Below Average
- Not Forecast

WATER SUPPLY PROSPECTS for OREGON
Spring and Summer Period

June 1, 1969

WATER SUPPLY OUTLOOK for OREGON

June 1, 1969

Oregon's June 1 water supply outlook remains near average to much above average. The unusually heavy early accumulation of snow was mainly responsible for the bright outlook because snow accumulation in the mountains since March 1 has been much below average. Most streams in Eastern Oregon flowed heavily in April, while those in the Oregon Cascades did not begin their snowmelt runoff until the middle of May. The excellent runoff, to date, has helped the stored water supplies considerably and they are now above average for this time of year.

SNOW COVER

Snow remains on only the highest ridges and peaks in Eastern Oregon. The snow line in the Cascades has receded to about the 4500 foot elevation on the west side and 5000 feet on the east. Automatic telemetering stations on the Upper Deschutes are still reporting 36 to 48 inches of snow at the 5600 and 6000 foot elevations.

PRECIPITATION

According to the U. S. Weather Bureau, precipitation during May was below average for the third month in a row. The range was from 40 percent in the southeast up to 147 percent on the Hood River-Deschutes River watersheds. The remainder of the state was 75 to 90 percent of normal.

RESERVOIR STORAGE

After starting out the water year at below average levels, stored water supplies are now excellent and most reservoirs will provide some carryover for next year. Twenty-six reservoirs were storing 2,812,000 acre feet of water on June 1, 1969 compared to 2,450,000 acre feet usually stored on this date. This is 88 percent of capacity.

STREAMFLOW

Current streamflow records* indicate most streams and rivers in the state were still producing above average volumes during May. Flows during the April-May spring period have generally been the best since 1958.

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The following streamflow forecasts have been selected to generally represent the different areas of the state and most other streams in these areas will be close to the represented percent of average:

<u>STREAM</u>	<u>PERIOD</u>	<u>FORECAST</u> (1000's A. F.)	<u>PERCENT</u> 1953-67 Avg.
Owyhee net Inflow	May-Sept	228	127
Umatilla at Pendleton	May-Sept	89	111
Mid. Fk. John Day nr. Ritter	Apr-July	140	125
Grande Ronde at La Grande	May-Sept	117	111
Powder near Baker	May-Sept	48	109
Deschutes at Benham Falls	May-Sept	425	83
Hood near Hood River	May-Sept	319	131
Mid. Fk. Willamette blw. N.Fk.	Apr-Sept	920	111
Rogue at Raygold	May-Sept	740	108
Upper Klamath Lk. net Inflow	May-Sept	440	114
Silvies near Burns	Apr-Sept	106	128

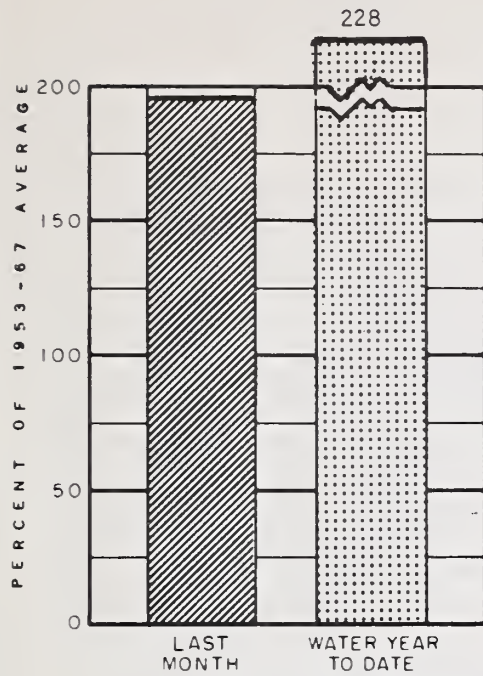
*Provided by U. S. Geological Survey from provisional data.



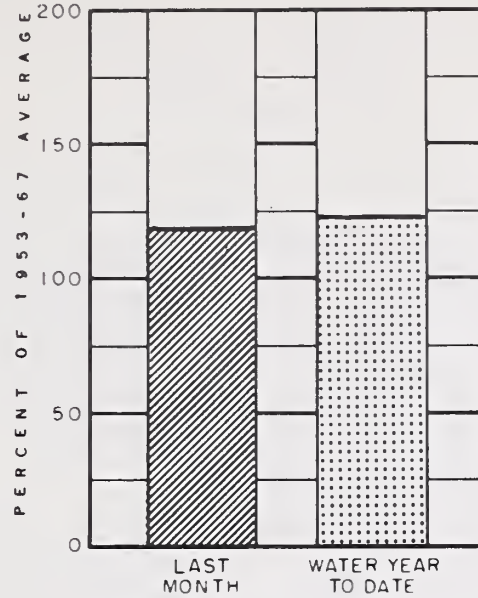
CURRENT OREGON STREAMFLOW

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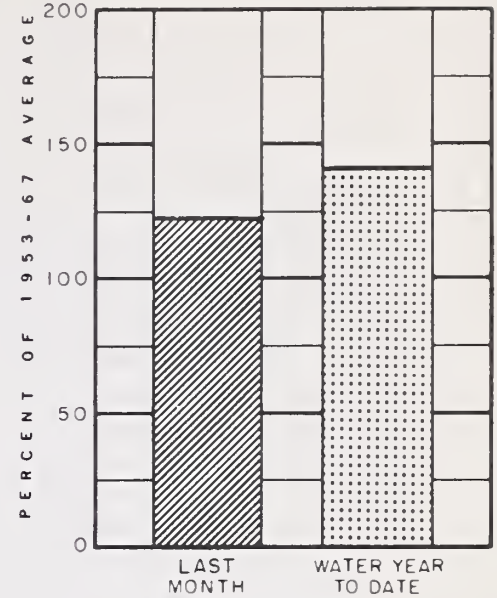
June 1, 1969



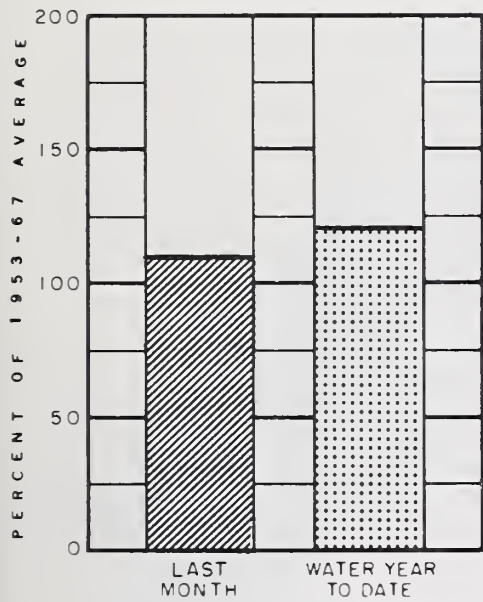
Owyhee Lake net inflow



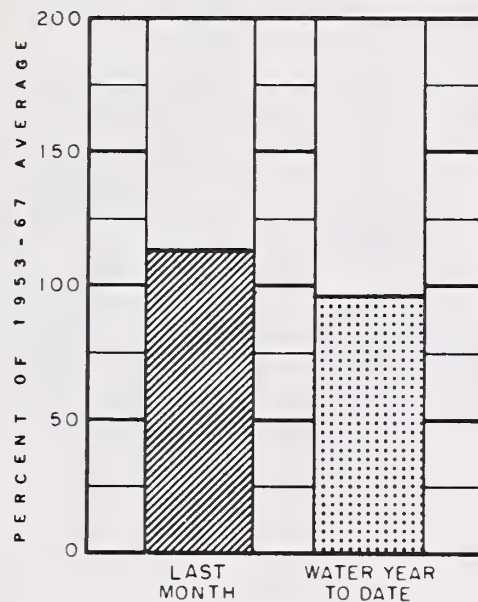
Grande Ronde at La Grande



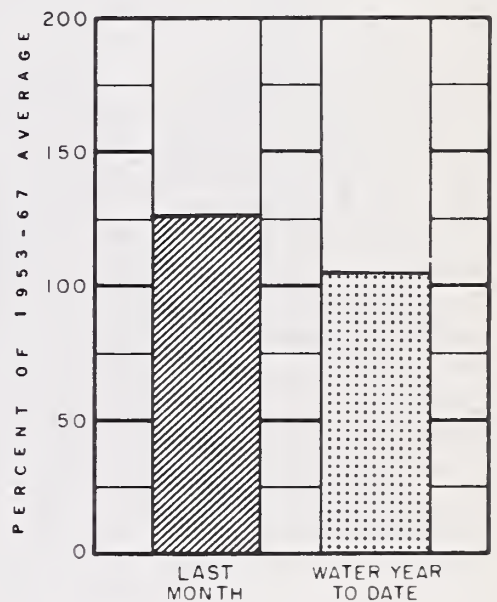
Umatilla at Pendleton



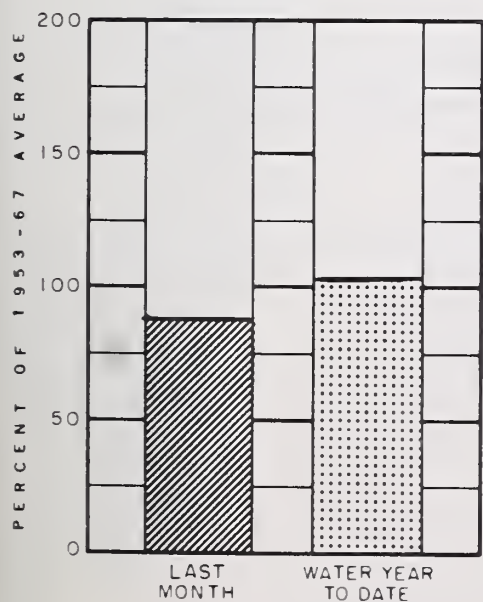
John Day at Service Creek



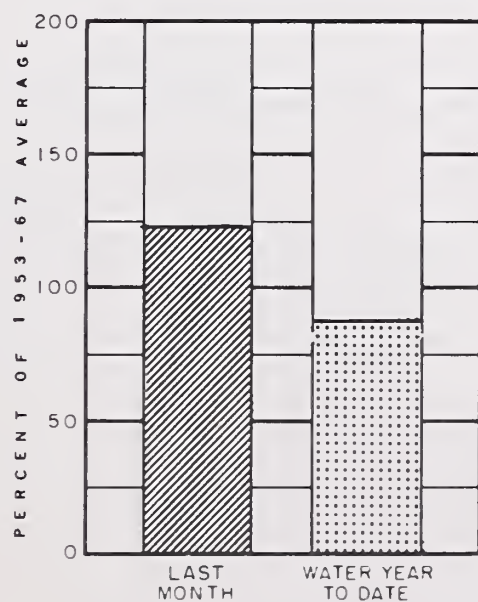
Deschutes at Moody



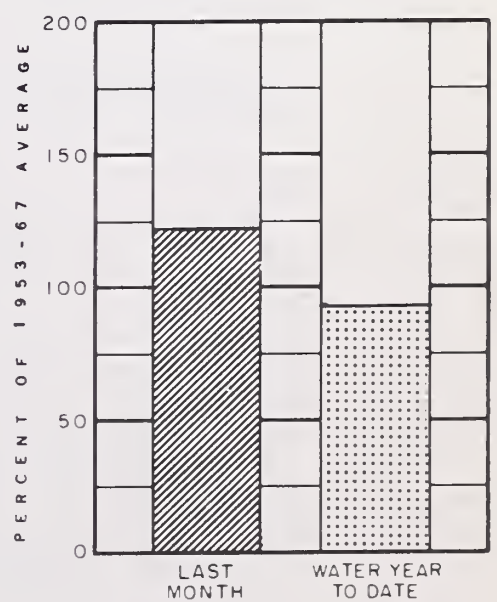
Mid. Fk. Willamette below No. Fk.



Umpqua near Elkton



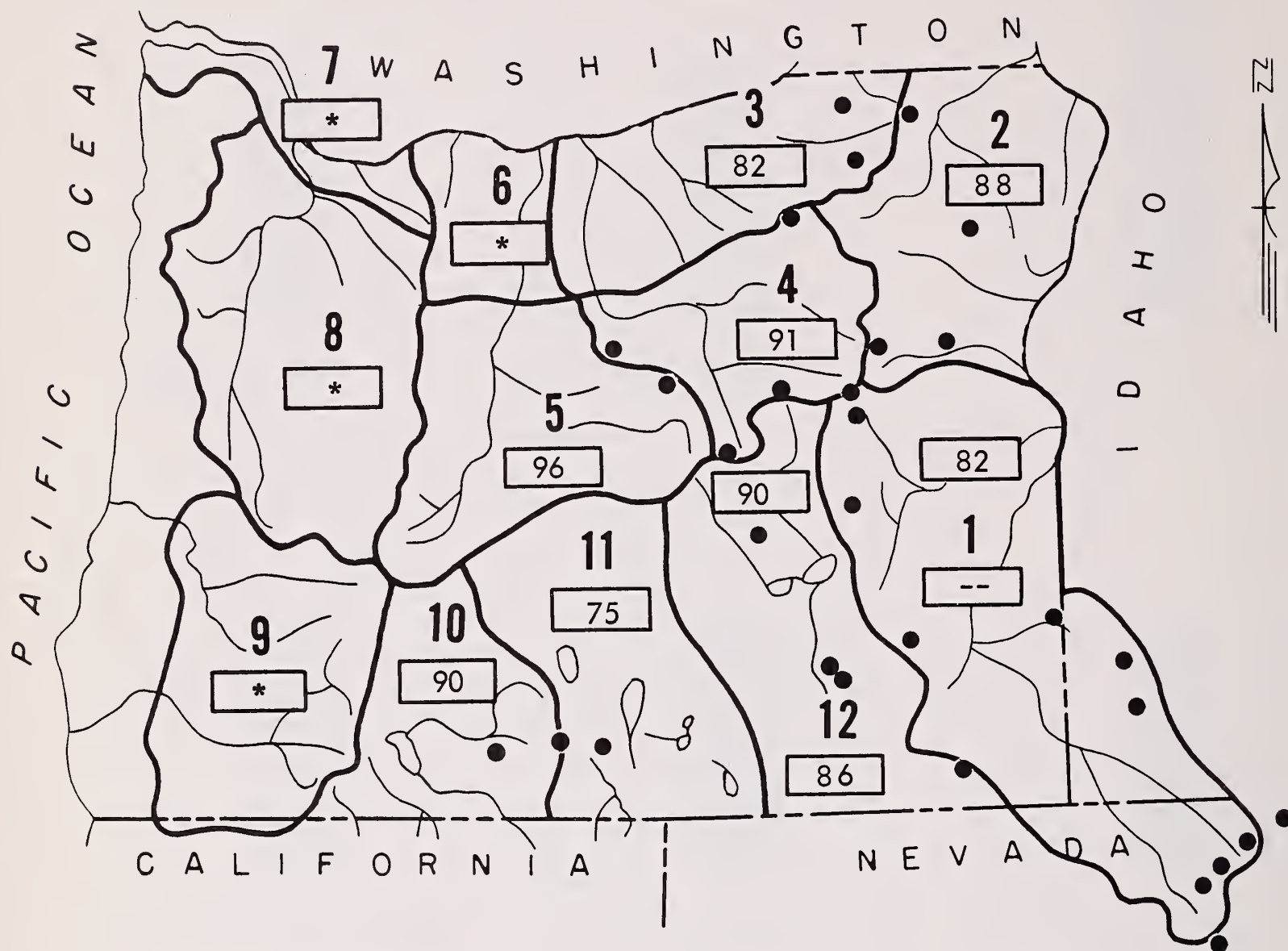
Rogue at Raygold



Upper Klamath Lake net inflow

MOUNTAIN SOIL MOISTURE in OREGON as percent of capacity

June 1, 1969

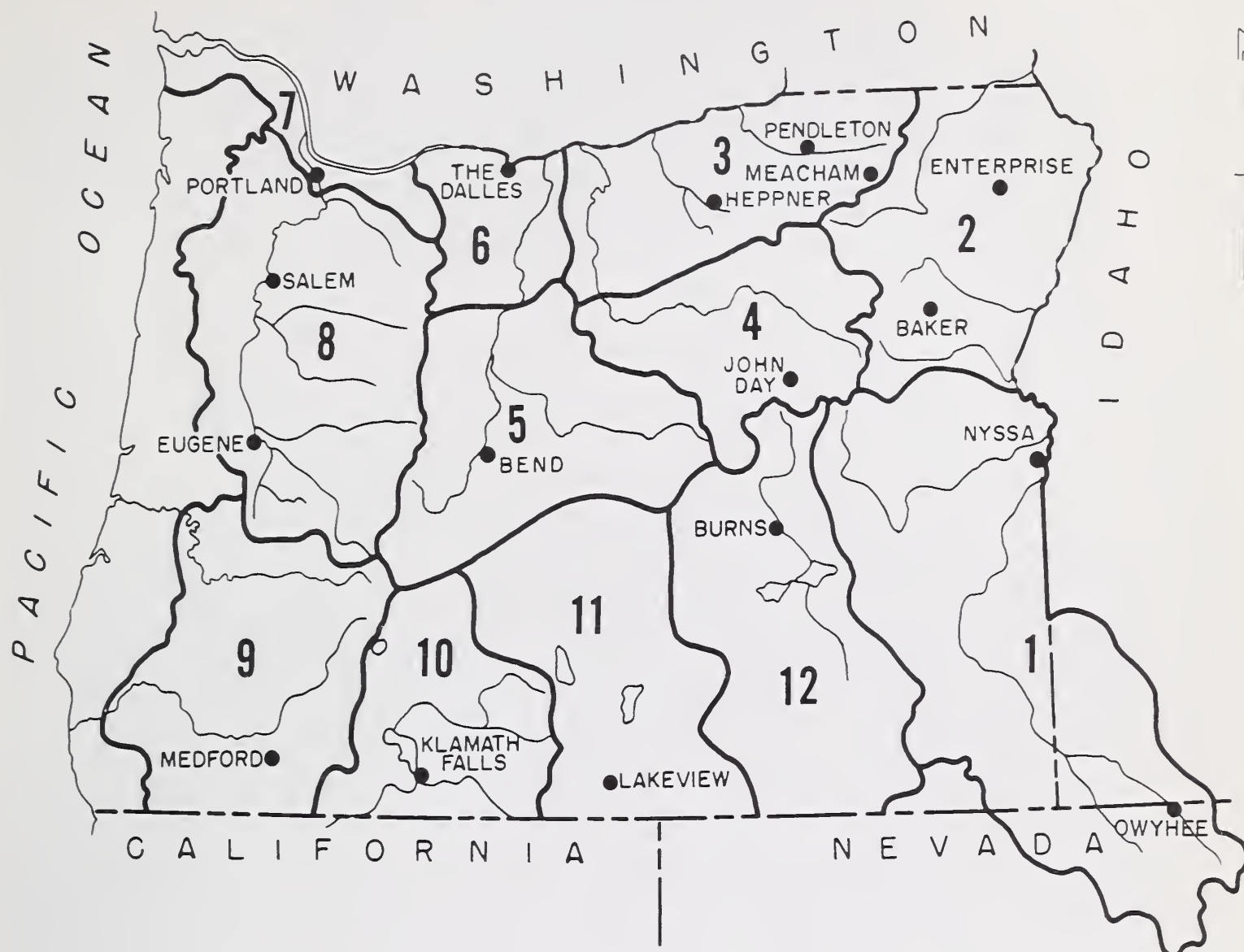


● Soil Moisture Station

**Moisture studies not yet developed in these areas.*

VALLEY PRECIPITATION in OREGON^a

June 1, 1969



PRECIPITATION as PERCENT of the 1953-67 AVERAGE

STATION	LAST MONTH	WATER ^b YEAR TO DATE	STATION	LAST MONTH	WATER ^b YEAR TO DATE
Baker Apt.	106	124	Lakeview	20	102
Bend	108	76	Meacham	62	93
Burns	31	104	Medford Apt.	118	86
Enterprise	71	90	Nyssa	82	122
Eugene Apt.	113	102	Pendleton Apt.	118	126
Heppner	86	122	Portland Apt	78	117
John Day	90	137	Salem Apt.	45	111
Klamath Falls Apt.	66	89	The The Dalles	86	107
			Owyhee (Nevada)	10	101

(a) Preliminary data furnished by the U.S. Weather Bureau. (b) Oct. 1 to date. (c) Report delayed.

U.S.D.A. SOIL CONSERVATION SERVICE DAILY RADIO REPORTS BY AUTOMATIC SNOW MEASURING STATION

40

35

30

25

20

15

10

5

0

DAILY 8 00 A.M. OBSERVATIONS
Revised by

IRISH-TAYLOR AUTOMATIC SNOW STATION UPPER DESCHUTES RIVER WATERSHED AT 5500 FEET ELEVATION

NOTE: SOME POINTS ON GRAPH ARE INTERPOLATED.

INCHES OF WATER IN SNOWPACK

1.5 YEAR AVERAGE
ACCUMULATION OF WATER IN SNOWPACK

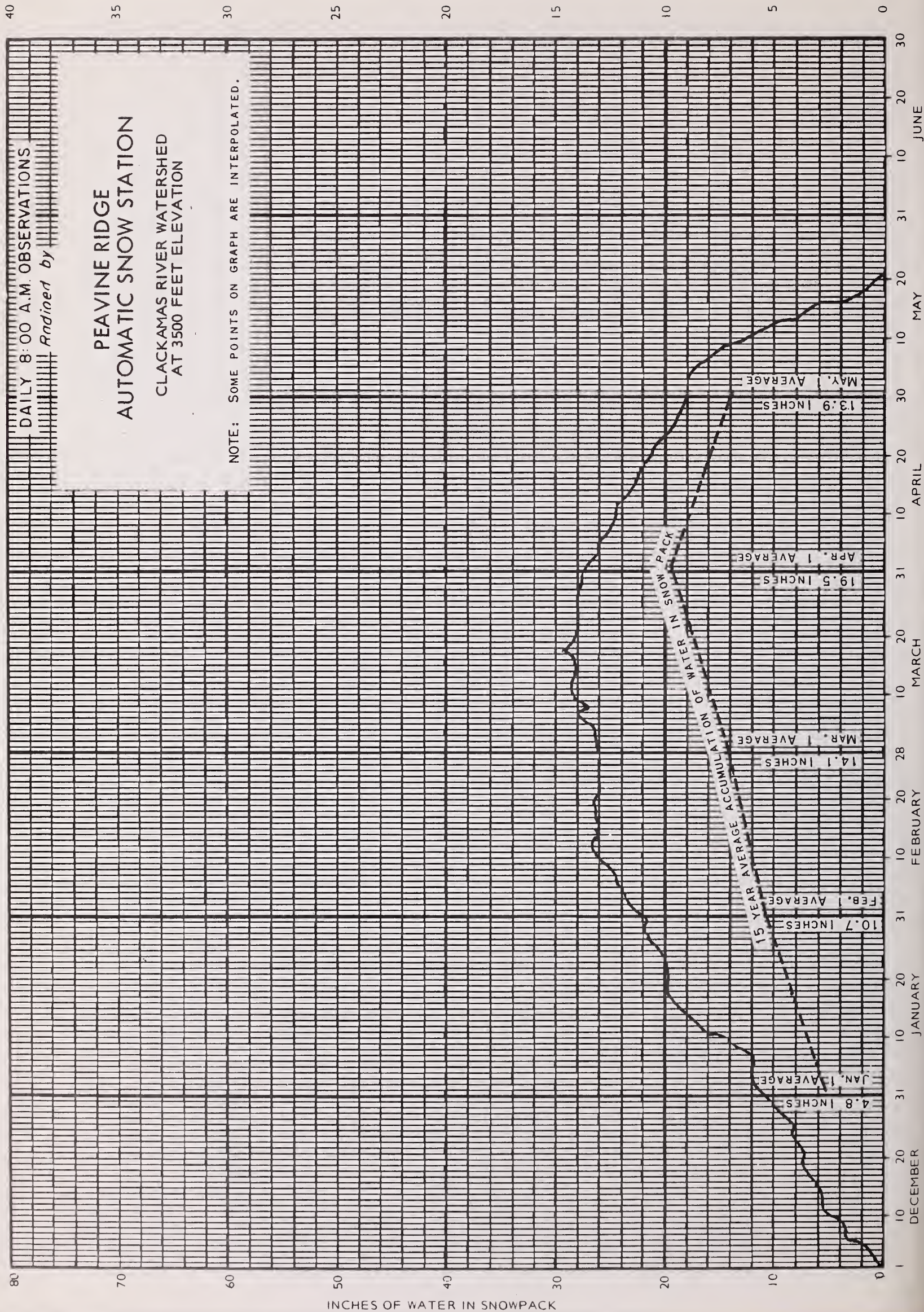
38.4 INCHES
APR. 1 AVERAGE

31.5 INCHES
MAR. 1 AVERAGE

23.3 INCHES
FEB. 1 AVERAGE

DECEMBER 1 10 20 31 JANUARY 10 20 31 FEBRUARY 10 20 28 31 MARCH 10 20 31 APRIL 10 20 30 MAY 10 20 31 JUNE

U.S.D.A. SOIL CONSERVATION SERVICE DAILY RADIO REPORTS BY AUTOMATIC SNOW MEASURING STATION



U.S.D.A. SOIL CONSERVATION SERVICE DAILY RADIO REPORTS BY AUTOMATIC SNOW MEASURING STATION

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DAILY 8:00 A.M. OBSERVATIONS
Revised by

WILLAMETTE PASS AUTOMATIC SNOW STATION

MIDDLE FORK WILLAMETTE RIVER WATERSHED
AT 5600 FEET ELEVATION

NOTE: SOME POINTS ON GRAPH ARE INTERPOLATED.

INCHES OF WATER IN SNOWPACK

IN SNOW PACK

15 YEAR AVERAGE ACCUMULATION OF WATER

42.4 INCHES
MAY 1 AVERAGE

41.6 INCHES
APR. 1 AVERAGE

33.7 INCHES
MAR. 1 AVERAGE

26.2 INCHES
FEB. 1 AVERAGE

JUNE

MAY

APRIL

MARCH

FEBRUARY

JANUARY

DECEMBER

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) As of June 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953-67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE ^b
NO.	NAME				
AREA 1 - OWYHEE, MALHEUR WATERSHEDS					
1780	Jordan Creek above Lone Tree Creek	65	May-July	48	135
2140	Malheur near Drewsey	27	May-July	33	82
		28	May-Sept.	34	82
2175	Malheur, North Fork at Beulah ^d	35	May-July	33	106
		39	May-Sept.	38	102
1825	Owyhee Reservoir net Inflow ^k	210	May-July	160	131
		228	May-Sept.	179	127
AREA 2 - BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS					
3305	Bear near Wallowa	59	May-Sept.	57	104
2730	Burnt near Hereford ^d	12.1	May-June	13.6	89
		14.0	May-Sept.	15.5	90
3200	Catherine near Union	56	May-Sept.	52	107
2882	Eagle Creek above Skull Creek	145	May-July	143	101
		158	May-Sept.	156	105
3190	Grande Ronde at La Grande	113	May-July	101	111
		117	May-Sept.	105	111
3295	Hurricane Creek near Joseph	46	April-Sept.	47	98
2920	Imnaha at Imnaha	290	April-Sept.	307	95
3300	Lostine near Lostine	130	April-Sept.	125	104
2755	Powder River near Baker	47	May-July	42	112
		48	May-Sept.	44	109
3250	Wallowa, East Fork near Joseph ^d	8.7	May-July	8.7	100
		11.2	May-Sept.	11.2	100
AREA 3 - UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS					
0320	Butter Creek near Pine City	4.5	May-July	4.0	112
0225	McKay near Pilot Rock	12.0	May-Sept.	11.0	109
0200	Umatilla River near Gibbon	50	May-July	42	119
		55	May-Sept.	48	114
0210	Umatilla River at Pendleton	85	May-July	75	113
		89	May-Sept.	80	111
0110	Walla Walla, No. Fork near Milton	9.2	May-July	8.2	112
		9.7	May-Sept.	8.7	111
0100	Walla Walla, So. Fork near Milton	43	May-July	38	114
		57	May-Sept.	50	114
AREA 4 - UPPER JOHN DAY WATERSHEDS					
0385	John Day at Prairie City	52	April-July	42	124
		59	April-Sept.	46	128
0440	John Day, Middle Fork at Ritter	140	April-July	112	125
		146	April-Sept.	116	126
0375	Strawberry near Prairie City	7.9	April-July	7.7	103
		8.6	April-Sept.	8.4	102
AREA 5 - UPPER DESCHUTES, CROOKED WATERSHEDS					
0535	Crane Prairie Reservoir total Inflow	75	May-July	68	110
		118	May-Sept.	111	106
0600	Crescent at Crescent Lake ^d	18.8	May-July	18.5	101
		24	May-Sept.	24	100
0795	Crooked near Post	31	May-July	38	82
		32	May-Sept.	40	80
0645	Deschutes at Benham Falls ^d	240	May-July	305	79
		425	May-Sept.	509	83
0500	Deschutes below Snow Creek	61	May-Sept.	59	103
0630	Deschutes, Little near Lapine ^d	83	April-July	83	100
		100	April-Sept.	95	105
0848	Ochoco Reservoir net Inflow	10.0	May-Sept.	12.1	82
0555	Odell near Crescent	34	April-Sept.	30	113
0750	Squaw near Sisters	51	April-Sept.	51	100
0730	Tumalo near Bend	54	April-Sept.	49	110

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of June 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953 - 67 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE ⁱ
NO.	NAME				
AREA 6 - HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS					
1210	Hood near Hood River	250	May-July	189	132
		319	May-Sept.	243	131
1185	Hood, West Fork near Dee	129	May-July	90	143
		159	May-Sept.	112	142
1015	White below Tygh Valley	113	May-July	86	132
		136	May-Sept.	103	132
AREA 7 - LOWER COLUMBIA WATERSHEDS					
1057	Columbia at The Dalles	66,300	May-June	59,688	111
		100,000	May-Sept.	92,457	109
AREA 8 - WILLAMETTE WATERSHEDS					
2080	Clackamas at Big Bottom	166	April-July	134	124
		210	April-Sept.	166	127
2100	Clackamas at Estacada	826	April-July	689	120
		945	April-Sept.	800	118
2095	Clackamas above Three Lynx	624	April-July	517	123
		723	April-Sept.	610	118
1590	McKenzie at McKenzie Bridge	495	April-July	465	106
		640	April-Sept.	614	104
1625	McKenzie near Vida	1087	April-July	1087	100
		1321	April-Sept.	1321	100
2090	Oak Grove Fork above Power Intake	168	April-July	125	134
		220	April-Sept.	163	135
1545	Row near Dorena	110	April-July	106	104
		115	April-Sept.	110	104
1830	Santiam, North at Mehama ^d	1000	April-July	800	125
		1115	April-Sept.	901	128
1875	Santiam, South at Waterloo	680	April-July	596	114
		698	April-Sept.	633	110
1480	Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge ^d	820	April-July	725	113
		920	April-Sept.	828	111
1910	Willamette at Salem ^d	4696	April-July	4696	100
		5199	April-Sept.	5199	100
AREA 9 - ROGUE, UMPQUA WATERSHEDS					
3620	Applegate near Copper	202	April-Sept.	140	144
3145	Clearwater above Trap Creek ^d	60	May-Sept.	60	100
5045	Fourmile Lake net Inflow ^d	6.1	April-Sept.	4.1	149
5140	Hyatt Reservoir net Inflow ^d	4.0	May-Sept.	2.4	167
3771	Illinois River near Kerby	288	April-July	205	140
		293	April-Sept.	211	139
3425	Little Butte, N. Fk. at Fish Lake nr. Lake Cr ^d	20	April-Sept.	14.4	139
3415	Little Butte, S. Fk. near Lake Creek	55	April-July	33	116
	NOTE: Minimum flow will drop to 100 c.f.s. by June 10.				
3280	Rogue above Prospect	208	May-July	192	108
		269	May-Sept.	249	108
3320	Rogue, South Fork near Prospect ^d	48	May-July	46	104
		56	May-Sept.	57	98
3350	Rogue River below South Fork	458	May-July	413	111
		594	May-Sept.	551	108
3590	Rogue at Raygold near Central Point	580	May-July	525	111
		740	May-Sept.	685	108
3615	Rogue at Grants Pass	662	May-Sept.	662	100
3135	Umpqua, No. blw. Lemolo Res. nr. Toketee Falls ^d	178	April-Sept.	176	101

STREAMFLOW FORECASTS^a(1,000 Ac. Ft.) as of June 1, 1969

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	1953- 67 AVERAGE	THIS YEAR AS PERCENT. OF AVERAGE ⁱ
NO.	NAME				
AREA 10 - KLAMATH WATERSHEDS					
823	Clear Lake Reservoir Inflow	15.0	May-Sept.	15.1	99
8215	Gerber Reservoir Inflow	6.5	May-Sept.	5.0	130
5010	Sprague near Chiloquin	210	May-Sept.	208	100
5070	Upper Klamath Lake net Inflow ^k	440	May-Sept.	386	114
5025	Williamson below Sprague River	349	May-Sept.	331	105
AREA 11 - LAKE COUNTY, GOOSE LAKE WATERSHEDS					
3840	Chewaucan near Paisley	95	April-June	75	126
		105	April-Sept.	84	125
3715	Deep above Adel	105	April-June	61	172
		110	April-Sept.	65	169
3385	Drews Reservoir net Inflow ^d	15.0	May-Sept.	11.3	133
3785	Honey near Plush	20.0	April-June	15.4	130
		21.0	April-Sept.	16.1	130
3900	Silver Creek near Silver Lake	15.0	May-July	12.1	124
		17.0	May-Sept.	14.0	121
3660	Twentymile near Adel	27.7	April-June	16.3	170
		29.6	April-Sept.	17.2	172
AREA 12 - HARNEY BASIN WATERSHEDS					
3960	Donner und Blitzen near Frenchglen	70	April-June	46	152
		80	April-Sept.	55	145
4030	Silver near Riley	28	April-July	17.9	156
3935	Silvies near Burns	103	April-June	79	130
		106	April-Sept.	83	128
4065	Trout near Denio	12.6	April-June	6.5	194
		15.0	April-Sept.	7.5	200

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	1953-1967 AVERAGE
Annie Spring	6018	6/3	24	13.9	--	--
Billie Creek Divide	5300	5/29	0	0.0	0.0	--
Blue Mountain Camp	4300	5/28	0	0.0	0.0	--
Cascade Summit	4880	6/2	4	2.3	0.0	6.9 ^m
Clear Lake	3500	5/29	0	0.0	0.0	0.0 ^m
Clear Lake (Experimental)	3500	5/29	0	0.0	0.0	0.3 ^m
Cold Springs Camp	6100	5/27	27	14.1	0.6	--
Detroit (City)	1610	6/2	0	0.0	0.0	--
Detroit Dam	1580	6/2	0	0.0	0.0	--
Diamond-Crater Summit	5800	5/26	18	9.2	0.0	--
Diamond Lake	5315	5/26	2	1.3	0.0	--
Diamond Lake Junction (97)	4600	5/26	0	0.0	0.0	--
Fourmile Lake	6000	5/29	0	0.0	--	--
Hogg Pass	4755	6/2	34	18.5	0.0	--
Hungry Flat	4400	5/27	0	0.0	0.0	--
Marion Forks	2730	6/2	0	0.0	0.0	--
McCredie Springs	2120	6/2	0	0.0	0.0	0.0 ^h
Meridian Dam	750	6/2	0	0.0	0.0	0.0 ^m
Mill City	826	6/2	0	0.0	0.0	--
New Dutchman Flat #2	6400	5/27	52	29.0	16.2	--
Oakridge	1310	6/2	0	0.0	0.0	0.0 ^h
Olive Lake	6000	5/28	0	0.0	0.0	--
Park Headquarters	6450	6/3	62	35.7	--	--
Peavine Ridge	3500	5/22	7	3.6	--	--
Phlox Point	5400	5/29	77	43.1	14.5	43.6 ^m
Quartz Mountain	5320	5/28	0	0.0	--	--
Quartz Mountain (PP&L)	5504	5/28	0	0.0	--	--
Quartz Mountain (Extension)	5320	5/28	0	0.0	--	--
Railroad Overpass	2750	6/2	0	0.0	0.0	0.0 ^h
Salt Creek Falls	4000	6/2	0	0.0	0.0	0.7 ^m
Santiam Junction	3990	6/2	0	0.0	0.0	--
Still Creek	3670	5/29	14	7.3	0.0	2.4 ^m
Still Creek (Experimental)	3670	5/29	0	0.0	0.0	--
Sun Mountain	5350	5/26	3	1.8	0.0	--
Tangent	5400	5/27	0	0.0	0.0	--
Tollgate	5070	5/28	0	0.0	0.0	0.7 ^m
Umbrella Falls	5400	5/31	88	50.6	15.2	--
Weston Mountain	2700	5/28	0	0.0	0.0	--
Whitewater Bridge	2175	6/2	0	0.0	0.0	--

RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1933-1967 AVERAGE
<u>AREA 1 - OWYHEE, MALHEUR WATERSHEDS</u>				
Agency Valley	60.0	55.8	33.2	48.8
Antelope	55.0	55.0	14.0	37.3
Bully Creek	30.0	25.5	19.5	18.6
Owyhee	715.0	708.0	365.4	517.0
Warmsprings	191.0	151.1	86.8	131.9
Willow Creek #3	26.0	b _i		
<u>AREA 2 - BURNT, POWDER, PINE, GRANDE RONDE IMNAHA WATERSHEDS</u>				
Thief Valley	17.4	17.4	b	- -
Unity	25.2	23.6	19.6	22.3
Wallowa Lake	37.5	38.1	30.2	30.6
Phillips Lake	73.5	50.2	- -	- -
<u>AREA 3 - UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS</u>				
Cold Springs	50.0	49.6	32.8	48.0
McKay	73.8	70.9	33.8	62.1
<u>AREA 5 - UPPER DESCHUTES, CROOKED WATERSHEDS</u>				
Crane Prairie	55.3	29.0	27.6	42.4
Crescent Lake	86.9	39.3	46.2	51.9
Ochoco	47.5	33.6	13.0	37.9
Prineville	153.0	153.9	109.6	146.8 ^m
Wickiup	200.0	149.6	138.0	172.0
<u>AREA 6 - HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS</u>				
Clear Lake	11.9	7.1	3.6	6.0
<u>AREA 8 - WILLAMETTE WATERSHEDS</u>				
Cottage Grove	30.0*	27.8	22.0	27.6
Cougar	155.2*	179.9	132.2	- -
Detroit	299.9*	286.4	288.2	268.9
Dorena	70.5*	65.2	66.0	63.6
Fall Creek	115.0*	109.8	104.1	- -
Fern Ridge	94.2*	84.6	95.0	89.8
Foster	30.0*	26.5	22.0	- -
Green Peter	270.0*	252.1	253.9	- -
Hills Creek	200.0*	193.8	170.4	187.6 ^m
Lookout Point	337.2*	320.5	226.9	327.4 ^m
Timothy Lake	61.7	64.1	63.5	59.4 ^m
*Multiple purpose reservoir--space reserved primarily for flood runoff.				
<u>AREA 9 - ROGUE, UMPQUA WATERSHEDS</u>				
Emigrant Lake**	39.0	36.7	28.0	35.6
Fish Lake	7.8	5.6	3.7	6.9
Fourmile Lake	16.1	8.5	5.1	13.0
Howard Prairie	60.0	56.5	39.5	44.6 ^m
Hyatt Prairie	16.1	15.6	10.8	15.2

RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1953-1967 AVERAGE
AREA 10 - KLAMATH WATERSHEDS				
Clear Lake	440.2	316.3	196.1	242.2
Gerber	94.0	83.6	50.8	61.9 ^m
Upper Klamath Lake	584.0	564.8	416.3	538.3
AREA 11 - LAKE COUNTY, GOOSE LAKE WATERSHEDS				
Cottonwood**	8.7	8.5	3.3	6.6
Drews	63.0	61.8	39.9	52.8
Thompson Valley	19.5	b		14.7 ^m
**Average for years of record (in base period) after reconstruction.				

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
<u>AREA 1 - OWYHEE, MALHEUR WATERSHEDS</u>							
Bear Creek (Nev.)	7800	72	16.8	c			
Big Bend (Nev.)	6700	48	16.7	c			
Blue Mtn. Springs	5900	42	16.9	5/29	11.3	12.2	13.1
Crane Prairie	5375	48	18.2	5/29	17.9	18.0	18.0
Folly Farm	4450	30	12.5	c			
Jack Creek, Lower (Nev.)	6800	48	8.6	c			
Jordan Valley	4390	48	14.8	b		13.3	--
Mud Flat (Ida.)	5500	48	12.8				
Rodeo Flat (Nev.)	6800	42	11.0	c			
Stinking Water Summit	4800	48	21.9	c			
Taylor Canyon (Nev.)	6200	48	15.1	c			
Triangle (Ida.)	5150	48	16.6	c			
<u>AREA 2 - BURNT, POWDER, PINE, GRANDE RONDE, TUNAHA WATERSHEDS</u>							
Blue Mtn. Summit	5100	36	16.8	6/4	16.0	13.2	16.0
Dooley Mountain	5430	36	9.2	6/4	5.7	5.7	6.4
Emigrant Springs	3925	48	22.3	6/5	21.2	20.6 ^f	20.4 ^f
Ladd Summit	3730	48	18.9	6/3	12.8	9.3	12.8 ^f
Moss Springs	5850	42	25.8	6/3	17.0	16.4	16.4 ^f
Tollgate	5070	48	23.6	5/28	17.8	18.4	19.4
<u>AREA 3 - UMATILLA, WALLA WALLA, WILLOW, ROCK LOWER JOHN DAY WATERSHEDS</u>							
Athena-Weston	1700	48	18.7	5/28	11.5	10.7	11.5
Battle Mtn. Summit	4340	48	13.8	6/5	13.3	12.4 ^f	13.8 ^f
Emigrant Springs	3925	48	22.3	6/5	21.2	20.6 ^f	20.4 ^f
Tollgate	5070	48	23.6	5/28	17.8	18.4	19.4
<u>AREA 4 - UPPER JOHN DAY WATERSHEDS</u>							
Battle Mountain Summit	4340	48	13.8	6/5	13.3	12.4 ^f	13.8 ^f
Beech Creek	4800	48	21.3	5/29	16.9	15.0	17.0
Blue Mountain Springs	5900	42	16.9	5/29	11.3	12.2	13.1
Blue Mountain Summit	5100	36	16.8	6/4	16.0	13.2	16.0
Derr	5670	24	9.0	5/28	8.8	8.9	9.0
Marks Creek	4540	36	14.1	5/26	13.1	11.7	13.4
Snow Mountain	6300	48	16.7	5/28	16.5	12.4	16.7
Starr Ridge	5150	36	10.6	5/29	10.5	10.4	10.4
Williams Ranch	4500	42	17.9	5/29	16.0	15.6	15.7
<u>AREA 5 - UPPER DESCHUTES, CROOKED WATERSHEDS</u>							
Derr	5670	24	9.0	5/28	8.8	8.9	9.0
Marks Creek	4540	36	14.1	5/26	13.1	11.7	13.4
Snow Mountain	6300	48	16.7	5/28	16.5	12.4	16.7
<u>AREA 6 - HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS</u>							
Cooper Spur	3490	72	26.4	6/2	14.3	14.0	--
<u>AREA 10 - KLAMATH WATERSHEDS</u>							
Bly Mountain	5090	42	14.0	5/21	12.6	10.1	12.4
<u>AREA 11 - LAKE COUNTY, GOOSE LAKE WATERSHEDS</u>							
Camas Creek	5720	42	14.5	6/4	12.3	12.8 ^f	12.9
Quartz Mountain	5320	48	15.3	5/28	9.9	8.5	9.4

SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
AREA 12 - HARNEY BASIN WATERSHEDS							
Blue Mountain Springs	5900	42	16.9	5/29	11.3	12.2	13.1
Fish Creek	7900	48	15.0	b	11.8		
Folly Farm	4450	30	12.5	c			
Silvies	6900	48	16.4	b	15.1		
Snow Mountain	6300	48	16.7	5/28	16.5	12.4	16.7
Starr Ridge	5150	36	10.6	5/29	10.5	10.4	10.4
Stinking Water	4800	48	21.9				
Willow-Bald	5000	24	6.6	5/28	6.2	3.3	6.4

PREVIOUSLY UNPUBLISHED OREGON SNOW SURVEY DATA
1968-69 Season

<u>SNOW COURSE</u> <u>Name</u>	<u>No.</u>	<u>Date</u>	<u>Depth</u> <u>(In.)</u>	<u>Water</u> <u>(In.)</u>
Althouse	23G4	2/18/69	74	29.4
Althouse (Alternate)		2/18/69	72	27.7
		2/27/69	82	29.3
		3/28/69	61	27.2
Blue Mountain Camp	18D16	11/27/68	9	1.2
Cascade Summit	22F3	1/15/69	77	18.8
		2/13/69	95	31.4
		3/14/69	103	36.2
		4/15/69	77	34.3
Cascade Summit (Alternate #1)	22F29	12/30/68	57	12.2
		1/15/69	79	17.8
		1/31/69	102	25.2
		2/13/69	95	30.5
		2/28/69	90	30.7
		3/14/69	106	36.2
		4/1/69	82	33.8
		4/15/69	78	34.1
		4/28/69	67	29.5
Cascade Summit (Alternate #2)		2/13/69	95	30.5
		2/28/69	90	30.7
		3/14/69	106	36.2
		4/1/69	82	33.8
		4/15/69	78	34.1
		4/28/69	67	29.5
Champion	22F9	1/15/69	86	23.7
		2/14/69	111	39.0
		3/14/69	117	45.4
		4/15/69	89	41.5
Cooper Spur	21D25	11/1/68	0	0.0
		12/2/68	8	0.5
		12/16/68	24	4.2
		1/15/69	66	17.5
		2/12/69	69	25.0
		3/16/69	62	26.4

SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Cooper Spur (Alternate)		12/2/68	9	0.8
		12/16/68	26	5.7
		1/6/69	38	12.4
		1/17/69	73	19.8
		2/4/69	79	29.3
		2/17/69	74	25.2
		3/5/69	72	25.8
		3/16/69	67	26.7
		4/1/69	58	25.7
		5/5/69	T	T
Detroit (City)	22E1	1/15/69	26	6.0
		2/14/69	29	11.7
		3/14/69	4	2.2
		4/15/69	0	0.0
Detroit Dam	22E2	1/15/69	19	5.2
		2/14/69	23	9.2
		3/14/69	0	0.0
		4/15/69	0	0.0
Fish Creek (Aerial Surveys)	18G2	2/27/69	69	24.8
		3/24/69	64	24.3
Fourmile Lake	22G12	2/28/69	90	32.2
Gerber	21G4	10/15/68	4	0.5
		12/1/68	3	0.6
		1/15/69	12	4.1
		2/14/69	21	6.4
		3/14/69	21	7.6
Golden Curry Creek	22F10	1/15/69	33	6.4
		2/14/69	42	14.4
		3/14/69	43	17.8
		4/15/69	14	7.0
Hogg Pass	21E6	1/16/69	115	30.1
		2/14/69	126	45.1
		3/14/69	127	50.2
		4/15/69	106	50.5
Lake Creek (Alternate)	18E18	12/30/68	24	4.9
		2/3/69	35	9.8

SNOW COURSE		No.	Date	Depth (In.)	Water (In.)
Name					
Lake Harriet	21D16		2/25/69	34	12.0
Lake of the Woods	22G15		1/12/69	32	8.4
			2/15/69	51	16.0
			3/13/69	60	18.3
			4/14/69	35	13.8
Layng Creek R.S.	22F13		1/15/69	1	0.1
			2/14/69	0	0.0
			3/14/69	0	0.0
			4/15/69	0	0.0
Lund Park	22F12		1/15/69	7	1.0
			2/14/69	16	5.8
			3/14/69	8	3.0
			4/15/69	0	0.0
Marion Forks	21E4		1/15/69	61	14.4
			2/14/69	71	25.8
			3/14/69	70	28.1
			4/15/69	41	19.7
McCredie Springs	22F6		1/15/69	11	1.3
			2/13/69	21	6.0
			3/14/69	13	5.6
			4/15/69	0	0.0
Meridian Dam	22F8		1/15/69	T	T
			2/13/69	0	0.0
			3/14/69	0	0.0
			4/15/69	0	0.0
Mill City	22E3		1/15/69	4	1.8
			2/14/69	5	1.5
			3/14/69	0	0.0
			4/15/69	0	0.0
Mt. Ashland Switchback	22G31		2/27/69	123	40.0
Mule Creek	23G14		12/30/68	28	7.6
			2/13/69	70	27.8
Oakridge	22F7		1/15/69	2	0.2
			2/13/69	T	T
			3/14/69	0	0.0
			4/15/69	0	0.0
Page Mountain	23G5		2/18/69	52	17.3

SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Parkdale	21D23	11/1/68	0	0.0
		12/2/68	T	T
		12/16/68	T	T
		1/17/69	32	7.2
		2/17/69	29	10.6
		3/16/69	16	2.0
Peavine Ridge	21D14	5/13/69	27	12.5
Quartz Mountain	20G6	1/15/69	24	5.5
		2/14/69	39	13.3
		3/14/69	42	14.3
		4/16/69	9	3.9
Quartz Mountain (Extension)		12/30/68	19	4.0
		1/15/69	24	5.7
		1/30/69	41	11.6
		2/14/69	38	12.7
		2/28/69	42	13.9
		3/14/69	42	15.0
		3/28/69	32	12.3
		4/16/69	10	4.5
		4/28/69	0	0.0
Quartz Mountain (PP&L)	9	1/15/69	28	7.1
		2/14/69	44	14.6
		3/14/69	45	16.0
		4/16/69	6	2.7
Railroad Overpass	22F5	1/15/69	17	3.7
		2/15/69	29	9.1
		3/14/69	31	11.7
		4/15/69	0	0.0
Salt Creek Falls	22F4	1/15/69	53	12.3
		2/13/69	63	20.7
		3/14/69	80	26.8
		4/15/69	54	23.5
Santiam Junction	21E5	1/16/69	93	22.2
		2/14/69	96	34.5
		3/14/69	94	39.0
		4/15/69	47	22.5
Silvies (Aerial Surveys)	18G1	2/27/69	42	15.5
		3/24/69	42	16.0

SNOW COURSE Name	No.	Date	Depth (In.)	Water (In.)
Siskiyou Summit	22G20	1/15/69	54	13.1
		2/13/69	58	21.0
		3/13/69	57	22.4
		4/14/69	13	5.8
		4/28/69	0	0.0
Still Creek (Experimental)		1/3/69	66	20.0
		2/3/69	116	35.8
		2/28/69	100	38.3
		3/28/69	93	44.7
		4/29/69	66	31.6
Strawberry (Aerial Surveys)	20G9	3/25/69	37	14.1
Summer Rim (Aerial Surveys)	20G2	3/25/69	58	22.0
Switchback	21D28	12/19/68	37	8.4
Tollgate	18D3	11/27/68	14	3.1
Umbrella Falls	21D30	12/3/68	43	11.3
Upper Valley	21D24	11/1/68	0	0.0
		12/16/68	16	3.1
		1/17/69	53	12.8
		2/17/69	57	20.0
		3/16/69	48	18.6
Weaver Creek	22F11	1/15/69	16	3.0
		2/14/69	25	8.8
		3/14/69	27	9.6
		4/15/69	No measurement-- disturbed by snowplow	
Weston Mountain	18D17	11/27/68	0	0.0
Whitewater Bridge	21E3	1/15/69	44	10.1
		2/14/69	46	18.5
		3/14/69	36	15.8
		4/15/69	0	0.0

ERRATA: 1969 SNOW MEASUREMENTS PUBLISHED IN ERROR

<u>SNOW COURSE</u> <u>Name</u>	<u>No.</u>	<u>Date</u>	<u>Depth</u> <u>(In.)</u>	<u>Water</u> <u>(In.)</u>
Bald Mountain	17D10a			
Previously Published		2/3/69	54	15.0
Correct Data		2/3/69	54	15.7
Beaver Dam Creek	22G28			
Previously Published		3/21/69	56	25.9
Correct Data		3/31/69	56	25.9
Big Sheep	17D14a			
Previously Published		2/3/69	84	25.0
Correct Data		2/3/69	84	25.2
Buck Pasture	18F6a			
Previously Published		2/4/69	6	1.2
Correct Data		2/4/69	6	1.5
Caldwell Ranch	21F8			
Previously Published		2/5/69	48	13.1
Correct Data		2/5/69	48	13.3
Clear Lake	21D12			
Previously Published		3/3/69	66	23.1
Correct Data		3/3/69	66	23.0
Crane Prairie	18D19			
Previously Published		3/3/69	39	11.7
Correct Data		2/28/69	39	11.7
Dog Hollow	21G6a			
Previously Published		3/25/69	8	3.8
Correct Data		3/25/69	8	3.0
Hogg Pass	21E6			
Previously Published (Area 5)		5/1/69	104	49.1
Correct Data		5/1/69	103	49.1
Izee Summit	19E9			
Previously Published		3/3/69	29	7.2
Correct Data		2/28/69	29	7.2
Knebal Springs	21D20			
Previously Published		3/28/69	0	0.0
Correct Data		3/31/69	36	16.2
Little Red Mountain	22G22			
Previously Published		3/1/69	124	43.4
Correct Data		3/2/69	124	43.4

<u>SNOW COURSE</u> <u>Name</u>	<u>No.</u>	<u>Date</u>	<u>Depth</u> <u>(In.)</u>	<u>Water</u> <u>(In.)</u>
Lucky Strike	18D6			
Previously Published		2/26/69	43	13.5
Correct Data		2/26/69	43	13.6
Mary's Peak	23E1			
Previously Published		4/28/69	58	28.6
Correct Data		4/28/69	57	28.6
Moss Springs	17D6			
Previously Published		12/27/68	43	10.5
Correct Data		12/27/68	44	10.6
North Umpqua	22F16			
Previously Published		1/3/69	28	7.6
Correct Data		1/2/69	28	7.6
Patton Meadow	20G17a			
Previously Published		3/25/69	66	22.8
Correct Data		3/25/69	66	25.1
Phlox Point	21D8			
Previously Published		2/3/69	175	76.4
Correct Data		2/3/69	175	64.5
Silvies	18G1			
Previously Published		3/3/69	44	17.6
Correct Data		2/28/69	44	17.7
Switchback	21D28			
Previously Published		2/27/69	123	40.0
Correct Data		3/7/69	80	28.8
Tamarack	19E4			
Previously Published		1/31/69	21	4.3
Correct Data		1/29/69	21	4.5
Timothy Lake	21D17			
Previously Published		3/5/69	72	29.3
Correct Data		3/5/69	71	29.3
Previously Published		5/1/69	29	13.1
Correct Data		5/6/69	29	13.2
Trap Creek	22F17			
Previously Published		1/3/69	24	6.0
Correct Data		1/2/69	24	6.1
"V" Lake	18G7a			
Previously Published		3/29/69	0	0.0
Correct Data		3/24/69	44	16.7

IDAHO SNOW COURSE

<u>Name</u>	<u>No.</u>	<u>Date</u>	<u>Depth (In.)</u>	<u>Water (In.)</u>
Red Canyon	16G11a			
Previously Published		3/26/69	24	9.1
Correct Data		3/24/69	24	9.1

NEVADA SNOW COURSE

<u>Name</u>	<u>No.</u>	<u>Date</u>	<u>Depth (In.)</u>	<u>Water (In.)</u>
Quinn Ridge	17H6a			
Previously Published		2/1/69	17	3.4
Correct Data		2/1/69	12	3.4

SNOW SURVEYS AT RADIO-TELEMETRY SITES
for Calibration Purposes

<u>Site</u>	<u>No.</u>	<u>Date</u>	<u>Depth (In.)</u>	<u>Water (In.)</u>
Cold Springs	22G24	4/22/69	79	37.3
		5/27/69	20	10.5
Irish-Taylor	21F6	2/27/69	109	40.3
		3/27/69	103	41.6
Peavine Ridge	21D14	2/28/69	82	31.0
		4/25/69	61	28.0
		5/13/69	26	13.5
		5/22/69	12	5.8

The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon State Engineer and Corps of State Watermasters
- Oregon State Highway Engineers
- Soil and Water Conservation Districts of Oregon

COUNTY

- Douglas County Water Resources Survey

FEDERAL

- Department of Agriculture
 - Cooperative Extension Service
 - Forest Service
 - Soil Conservation Service
- Department of Commerce
 - Weather Bureau
- Department of the Interior
 - Bonneville Power Administration
 - Bureau of Land Management
 - Bureau of Reclamation
 - Fish and Wildlife Service
 - Geological Survey
 - National Park Service
- Department of National Defense
 - Corps of Army Engineers

PUBLIC UTILITIES

- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific Utilities Company

MUNICIPALITIES

- City of Baker
- City of La Grande
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS

- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Juniper Flat Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale-Oregon Irrigation District
- Warm Springs Irrigation District

PRIVATE ORGANIZATIONS

- Amalgamated Sugar Company
- The Crag Rats, Hood River, Oregon

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